

MMZ/MMZ-G/MMZ-B >>>

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Extra Large 3D Coordinate Measuring Machines

- Ideal for large high-precision parts for aircraft, automobiles, machine tools and printing machines.
- High-speed, high-precision measurement is capable due to the VAST GOLD active scanning probe head that is also mounted on the PRISMO.
- Basic structure designed using finite-element method.

MMZ-G Series

(floor installation type)

- As the floor itself becomes the measurement table, large and heavy workpieces can be measured and easily carried in and out.
- The G Series provides the greatest measuring accuracy amongst our large-size 3D Coordinate Measuring Machines.

MMZ Series

(measurement table type)

- Symmetric table structure facilitates setting of large, heavy workpieces.



MMZ-B Series

(floor installation type)

- New series of flow type 3D coordinate measuring machines
- Easily installable entry-level type 3D coordinate measuring machine
- Use of a gantry type lessens the travel weight to considerably increase the travel speed and acceleration. (improved measurement efficiency)
- Another advantage of a gantry type is that workpieces can be easily loaded as the surrounding area is complete open and accessible.



VAST GOLD Probe



Specifications

Model		MMZ					MMZ-G												
		16/24/12	16/30/12	16/24/16	16/30/16	20/30/16	20/30/20	20/40/20	20/50/20	25/30/20	25/40/20	25/50/20	25/60/20	30/40/20	30/50/20	30/60/20			
Measuring Range (mm)	X	1600			1600		2000		2000			2500				3000			
	Y	2400	3000	2400	3000	3000	3000	4000	5000	3000	4000	5000	6000	4000	5000	6000			
	Z	1200		1600			2000			2000				2000					
Type		S-ACC																	
Measuring Accuracy	Maximum Permissible Indication Error	MPE_E (μm)	2.0+L/300			3.0+L/300		3.2+L/300		2.8+L/400<12			3.2+L/400<12				3.5+L/400<12		
	Maximum Permissible Probing Error	MPE_P (μm)	2.5			3.0		2.8			3.2				3.5				
	Maximum Permissible Scanning Error	MPE_THP (μm)	4.5			4.8		5.5			5.5				5.5				
Temperature Conditions		Ambient Temperature (°C)	18 to 22°C																
		Temperature Change	0.3°C/hour, 1.0°C/day, 0.3°C/m high																
Type		Standard																	
Measuring Accuracy	Maximum Permissible Indication Error	MPE_E (μm)	3.5+L/250		4.0+L/250		4.5+L/250		4.0+L/350			4.5+L/350				5.0+L/350			
	Maximum Permissible Probing Error	MPE_P (μm)	4.3		4.8		5.0		4.0			4.5				5.0			
	Maximum Permissible Scanning Error	MPE_THP (μm)	5.0		5.3		5.3		6.0			6.0				6.0			
Temperature Conditions		Ambient Temperature (°C)	18 to 24°C																
		Temperature Change	0.5°C/hour, 1.0°C/day, 0.5°C/m high																
Probe System		VAST GOLD																	
Controller		C99/IP54																	
Operation Panel		Standard operation panel																	
Measuring Scale		Steel scale																	
Scale Resolution (μm)		0.2																	
Workpiece Measured	Usable Width (mm)	1940		1940		3170		2600			3100				3600				
	Max. Height (mm)	1215		1615		1615		2300											
Guide System		Linear guide (ball screw drive)																	
		Setup mode: 0 to 77mm/s																	
Drive Speed (max.)	X, Y Axis Direction: 200mm/s					X, Y Axis Direction: 250mm/s													
	Z Axis Direction: 200mm/s					Z Axis Direction: 150mm/s													
	Vector Direction 340mm/s					Vector Direction: 340mm/s													
Drive Acceleration (max.)	X, Y Axis Direction: 500mm/s ²					X, Y Axis Direction: 200mm/s ²													
	Z Axis Direction: 500mm/s ²					Z Axis Direction: 200mm/s ²													
	Vector Direction: 580mm/s ²					Vector Direction: 430mm/s ²													
Air Source		Supply pressure: 0.6 to 1.0 MPa; Usage Pressure: 0.5 MPa; Consumption: 4 NR/min.																	
Power Requirements		Supply voltage: 3-phase 200V AC ±10%, Frequency: 47 to 63 Hz, Max. power consumption: 3000 VA																	
Machine Dimensions	Width	2770		2770		3170		3900			4400				4900				
	Depth	4150	4840	4240	4840	4840	5800	6800	7800	5800	6800	7800	8800	6800	7800	8800			
	Height	4590			5605			5730			5730				5730				
Machine Weight (kg)		10500	13500	12000	13000	18600	13500	15400	17300	14000	15700	17400	19100	16000	17700	19400			

* MPE_E (Maximum Permissible Indication Error) and MPE_P (Maximum Permissible Probing Error) are based on the ISO 10360-2-2001 (JIS B 7440-2-2003) evaluation method for 3D coordinate measuring machines. * MPE_THP (Maximum Permissible Scanning Error) is based on the ISO 10360-4-2001 (JIS B 7440-4-2003) evaluation method for scanning measurement.

* The above accuracies apply when a standard stylus is used. L (mm) is any measurement distance. * VAST GOLD probe head: tip φ8, length 63.5 mm

Specifications

Model		MMZ-B																	
		20/30/15	20/40/15	20/50/15	20/30/20	20/40/20	20/50/20	25/30/15	25/40/15	25/50/15	25/60/15	25/30/20	25/40/20	25/50/20	25/60/20				
Measuring Range (mm)	X	2000							2500										
	Y	3000	4000	5000	3000	4000	5000	3000	4000	5000	6000	3000	4000	5000	6000				
	Z	1500			2000				1500				2000						
Measuring Accuracy	Maximum Permissible Indication Error	MPE_E (μm)			4.0+L/200				6.0+L/150				4.0+L/180				6.0+L/130		
	Maximum Permissible Probing Error	MPE_P (μm)			4.5				6.5				4.5				6.5		
	Maximum Permissible Scanning Error	MPE_THP (μm)			7.7				11.2				7.7				11.2		
Temperature Conditions		Ambient Temperature (°C)	18 to 22°C																
		Temperature Change	1.0°C/hour, 2.0°C/day, 0.5°C/m high																
Probe System		VAST GOLD																	
Controller		MCC800/IP54																	
Operation Panel		Standard operation panel																	
Measuring Scale		Steel scale																	
Scale Resolution (μm)		0.2																	
Workpiece Measured	Usable Width (mm)	3209					3709												
	Max. Height (mm)	1932			2332				1932				2332						
Guide System		Air bearing (rack and pinion drive)																	
Drive Speed (max.)		Setup mode: 0 to 100mm/s, Each axis direction: 350mm/s, Vector direction: 600mm/s																	
Drive Acceleration (max.)		Each axis direction: 470mm/s ² , Vector direction: 800mm/s ²																	
Air Source		Supply pressure: 0.7 to 1.0 MPa; Usage Pressure: 0.6 MPa; Consumption: 300 NR/min.																	
Power Requirements		Supply voltage: Single-phase 100V AC ±10%, Frequency: 47 to 63 Hz, Max. power consumption: 2500 VA																	
Machine Dimensions	Width	4154							4654										
	Depth	4750	5750	6750	4750	5750	6750	4750	5750	4750	5750	6750	4750	5750	6750				
	Height	4487			5387				4487				5387						
Machine Weight (kg)		5600	6400	7900	5650	6450	7950	5700	6500	8000	9500	5750	6550	8050	9550				

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* The above accuracies apply when a standard stylus is used. L (mm) is any measurement distance. * VAST GOLD probe head: tip φ8, length 63.5mm